

REMARKS

The comments of the applicant below are each preceded by related comments of the examiner (in small, bold type).

1. **Claims 14 and 59 are rejected under 35 U.S.C. 102(e) as being anticipated by Goldhor (U.S. Patent No. 5,231,670).**

2. **Regarding claim 14, Goldhor teaches a voice user interface device comprising means for converting a voiced utterance into a corresponding signal as an input to a computer or into an internal command to the interface device, the voiced utterance being one of a set of voiced utterances that the means for converting is configured to convert, the internal command being a command to adjust the set of voiced utterances and means for recognizing the voiced utterance as either one to be converted to said signal or as one to be converted to said command (Figure 1, elements 12, 14, 16, 18, "recognizer"; col. 1, lines 17-20 55-68; col. 2, lines 1-2; col. 4, lines 10-13; col. 5, lines 40-55; col. 6, lines 46-48),**

Claim 14 has been amended to make clear that the set of voiced utterances that the means for converting is configured to convert is only "a subset of all possible voiced utterances" and that the internal command is a command to "change to a different set the set of utterances that the means for converting is configured to convert."

Although Goldhor provides examples of executable commands that control the operation of a voice recognizer (to identify incorrect recognitions; to teach the recognizer to learn from correct and incorrect recognitions; to adapt the recognizer's performance to a particular speaker's voice; and to reset the state of the recognizer—see col. 2, lines 17-21; col. 4, lines 14-15; col. 5, lines 44-46, 56-66; col. 8, lines 49-51; col. 10, lines 47-52; col. 11, lines 53-67; col. 12, lines 4-11, lines 22-26, 29-44; col. 13, lines 19-35), none of the examples describes or would have made obvious, in the words of claim 14, a "command to change to a different set the set of utterances that the means for converting is configured to convert."

Goldhor's discussion of a "candidate set" at col. 5, lines 40-55, refers to a set of "*potential recognition candidates*" for a given voiced utterance (col. 4, lines 39-43), not to a set of *voiced utterances* that a means for converting is configured to convert. And, in any case, Goldhor says nothing about adjusting which voiced utterances belong to a subset of all possible voiced utterances, but rather explicitly states that "the candidate set includes *all known*

vocabulary items which are sufficiently similar to the detected speech event.” (col. 1, lines 29-31).

3. Regarding claim 59, Goldhor teaches a voice user interface device comprising means for converting a voiced utterance into a corresponding signal as an input to a computer, means for converting a voiced utterance into a corresponding internal command to the voice user interface device to cause the voice user interface device to accept information about the set of voiced utterances the device is capable of recognizing and the set of signals and internal commands that correspond to each member of the set of voiced utterances the voice user interface device is capable of recognizing; and means for recognizing a voiced utterance as either one to be converted to a signal or ms one to be converted to an internal command (Figure 1, elements 12, 14, 16, 18, "recognizer"; col. 1, lines 17-20 55-68; col. 2, lines 1-2; col. 4, lines 10-13; col. 5, lines 40-55; col. 6, lines 46-48).

Claim 59 has been amended to make clear that the set of voiced utterances that the means for converting is configured to convert is only “a subset of all possible voiced utterances” and that the user interface must “accept information about . . . which voiced utterances belong to the set of voiced utterances the device is capable of recognizing.” As with claim 14, Goldhor does not describe or make obvious a “voice user interface to accept information about . . . which utterances belong to the set of voiced utterances the device is capable of recognizing.”

6. Claims 6-13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldhor (US Patent No. 5,231,670) in view of Torres (US Patent No. 4,821,211).

7. Regarding claim 6, Goldhor teaches a voice user interface system for producing input to a computer, and a program for execution on said computer, a state of said program, said configuration being associated with control of said program, comprising a voice recognizer for recognizing a voiced utterance and for providing corresponding signals as input to said computer (Figure 1, elements 12, 14, 16, 18, "recognizer"; col. 1, lines 17-20 55-68; col. 2, lines 1-2; col. 4, lines 10-13; col. 6, lines 46-48), and a converter for converting said voiced utterance into a command string including a command directing motion of said pointer relative to said configuration (col. 1, lines 17-20 55-68; col. 2, lines 1-2; col. 4, lines 10-13; col. 6, lines 46-48). Goldhor does not specifically teach mimicking mouse commands or various details related to the display of the graphical user interface. Torres teaches a method and apparatus for navigating among program menus using a graphical menu tree and provides a description of well known cursor functionality and graphical user interface display for permitting computer users to access computer applications and manage windows by graphically designating graphic representations and manipulating those graphical representations via a graphic pointing device or voice interaction (Figures 1-3 and 4D; col. 3, line 64 to col. 5, line 56). It would have been obvious to one of ordinary skill at the time of the invention to provide for the manipulation of the movement of the cursor via vocal interaction as taught by Torres, in the system of Goldhor, because this would enable a person who is not physically able to move the cursor to be able to move the cursor or access and control icons/applications via vocal commands.

Claim 6 has been amended to specify that the motion of the pointer is directed “relative to a graphical element of said configuration.” Neither Goldhor nor Torres discloses “a converter for converting said voiced utterance into a command string including a command directing motion of said pointer relative to a graphical element of said configuration.” The examiner acknowledges that Goldhor does not describe the display of the graphical user interface.

In Torres, “it is . . . to be assumed that a pointer . . . is callable and positionable upon a monitor screen *relative to the graphic presentation of the menu hierarchy.*” (col. 4, lines 17-20). But the user must *manually* position the cursor on a particular element (menu) of the menu hierarchy. (col. 4, lines 27-28: the user must first “position the pointer to the graphic position associated with the desired menu”). Torres neither describes nor suggests “a converter for converting [a] voiced utterance into a command string including a command directing motion of [a] pointer relative to a graphical element of [a] configuration.”

Regarding claim 8, similar limitations to claim 6 are discussed above. Additionally, Goldhor teaches converting based on a state of the subsystem comprising said voice recognizer and said converter at col. 1, lines 55-60; col. 8, lines 24-27, as converting a voiced utterance to control an application.

Although Goldhor discloses keeping track of “application state information” (col. 8, lines 24-27), the application state is not the state of a subsystem as recited in claim 8. The application Goldhor refers to is the application being controlled; whereas the subsystem of the claim is the subsystem “comprising said voice recognizer and said converter.”

Regarding claim 9, similar limitations to claim 6 are discussed above. Additionally, Goldhor teaches converting based on a state of said program at col. 1, lines 55-60; col. 8, lines 24-27, as converting a voiced utterance to control an application.

The conversion in Goldhor is not “based on an evaluation of . . . a state.” The application state in Goldhor is used, “at a later time, to reset the application to its state at the time the input event occurred.” (col. 8, lines 27-29). The state is not used to affect the conversion of a voiced utterance to an output string.

Regarding claim 13, similar limitations to claim 6 are discussed above. Additionally, Goldhor teaches pointer movement continued unabated until stopped by an action of the user at col. 1, lines 67-68, col. 2, lines 1-2 and col. 6, lines 46-48, since using the voice input as equivalent to keyboard or mouse input.

Goldhor discloses input events including input from pointing devices such as a mouse. (col. 6, lines 46-48). But an input event, in Goldhor, must be treated by an application "as a single unit." (col. 6, lines 42-43). Indicator movement that continues unabated until stopped by an action of the user cannot be treated as a single unit because it has no pre-defined stopping point. Therefore, Goldhor does not describe and would not have made obvious movement of an indicator continuing unabated until stopped by an action of the user.

Regarding claim 15, similar limitations to claims 6-9 are discussed above. Additionally, Goldhor teaches mapping from a member of said set of internal representations to a member of said set of output strings used by said converter at col. 1, lines 27-34, col. 5, lines 3-5, 61-66; col. 6, lines 18-26, as permitting multiple recognizer representations to be mapped to a single command.

Goldhor discloses that multiple recognition candidates may correspond to a particular detected speech event. (col. 1, lines 27-34; FIG. 2, ref. 36). In other words, Goldhor discloses a multiple-to-one mapping of recognition candidates to *detected speech events*. Detected speech events correspond to spoken user commands; they are not output strings. Thus, Goldhor does not disclose and would not have made obvious a multiple-to-one mapping "from a member of [a] set of internal representations to a member of [a] set of output strings" as required by claim 15.

8. Claims 35-39 and 41-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torres (US Patent No. 4,821,211).

9. Regarding claim 35, Torres teaches a method and apparatus for navigating among program menus using a graphical menu tree and provides a description of well known cursor functionality and graphical user interface display for permitting computer users to access computer applications and manage windows by graphically designating graphic representations and manipulating those graphical representations via a graphic pointing device or voice interaction (Figures 1-3 and 4D; col. 3, line 64 to col. 5, line 56), which reads on a method for use with a machine having a graphical user interface and an application program, the method comprising the graphical user interface enabling a user to launch the application program and receiving a voice utterance from a user. Torres does not specifically disclose launching the application program in response to the received voiced utterance. However, the teachings of Torres describe the well-known implementation of a pointer for accessing computer applications and disclose using voice interaction to control system functionality. It would have been obvious to one of ordinary skill at the time of the invention to use the system of Torres to launch application programs via voice control of the cursor so as to provide computer access to application programs for physically challenged individuals.

Claim 35 is amended to specify that the application program is launched without invoking a control signal that controls the graphical user interface in response to the pointing device. In Torres, an application is started only when the user interacts with the graphical user

interface. To interact with the interface, the user moves the mouse or other pointing device, which invokes a control signal that controls the graphical user interface (col. 5, lines 6-16: the "MENUTREE" function may be invoked only after the user moves the mouse or other pointing device).

Regarding claim 41, similar limitations to claim 35 are discussed above. Additionally, Torres teaches manipulating one other graphical item (Figures 1-3 and 4D; col. 3, line 64 to col. 5, line 56), as various menu items, windows or graphical representations to which the user has access and control.

Claim 41 requires that what happens to the other graphical item in response to receiving the voiced utterance is that it is "manipulated". The cited passages of Torres neither disclose nor would have made obvious that a graphical element be manipulated. To the contrary, what is manipulated in Torres is the *pointer*. (see col. 4, lines 26-28). Claim 41 is explicit that there is a graphical item in addition to the cursor and that it is the graphical item, not the pointer, that is manipulated.

Regarding claim 52, similar limitations to claims 35, 41 and/or 45 are discussed above. Additionally, Torres teaches selectable menu items (Figures 1-3 and 4D).

Claim 52 is amended. As amended, the claim is patentable for at least the same reasons as claim 35.

All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable.

Canceled claims, if any, have been canceled without prejudice or disclaimer.

Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

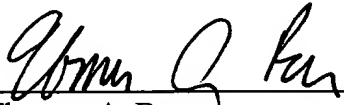
Enclosed is a \$120 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

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